

IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is set forth in the listing of the claims that follows. This listing of the claims replaces all prior claims listings.

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1-46. (Canceled)

47. (Currently amended) A conductive trace at least partially formed on at least one semiconductor device component, comprising a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising conductive polymer, at least a portion of said conductive trace being configured to extend and conduct electrical signals along a plane which is parallel to a plane in which the at least one semiconductor device component is located.

48. (Previously presented) The conductive trace of claim 47, wherein said conductive polymer comprises a thermoplastic conductive elastomer.

49. (Canceled)

50. (Previously presented) The conductive trace of claim 47, configured to be carried by a single semiconductor device component.

51. (Previously presented) The conductive trace of claim 47, configured to at least partially electrically connect two semiconductor device components.

52. (Currently amended) A semiconductor device comprising:
a semiconductor device component; and
at least one conductive trace carried by said semiconductor device component, said at least one conductive trace including a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising conductive polymer, at least a portion of said at

least one conductive trace being configured to extend and conduct electrical signals along a plane which is parallel to a plane in which said at least one semiconductor device component is located.

53. (Previously presented) The semiconductor device of claim 52, wherein said at least one conductive trace is substantially entirely carried by said semiconductor device component.

54. (Original) The semiconductor device of claim 53, wherein said semiconductor device component comprises a layer of a carrier substrate.

55. (Original) The semiconductor device of claim 53, wherein said semiconductor device component comprises a dielectric layer disposed on an active surface of a semiconductor die.

56. (Previously presented) The semiconductor device of claim 52, wherein said conductive polymer comprises a thermoplastic conductive elastomer.

57. (Canceled)

58. (Previously presented) The semiconductor device of claim 52, wherein said at least one conductive trace communicates with a contact of said semiconductor device component.

59. (Original) The semiconductor device of claim 58, wherein said semiconductor device component comprises a carrier substrate.

60. (Original) The semiconductor device of claim 58, wherein said semiconductor device component comprises a semiconductor die.

61. (Original) The semiconductor device of claim 58, wherein said semiconductor device component comprises a packaged semiconductor device.

62. (Original) The semiconductor device of claim 52, wherein said semiconductor device component comprises leads.

63. (Previously presented) The semiconductor device of claim 62, wherein said at least one conductive trace contacts one of said leads.

64. (Currently amended) A semiconductor device assembly, comprising:
a carrier including contacts and carrying circuitry in communication with said contacts; and
at least one semiconductor die adjacent said carrier, said semiconductor die including bond pads;
and
conductive elements ~~electrically connecting~~ extending between and contacting contacts of said carrier ~~to~~ and corresponding bond pads to electrically connect circuitry of said at least one semiconductor die with said circuitry of said carrier, each of said conductive elements including a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising ~~the same~~ conductive material.

65. (Original) The semiconductor device assembly of claim 64, wherein said carrier comprises a carrier substrate.

66. (Original) The semiconductor device assembly of claim 64, wherein said carrier comprises leads.

67. (Original) The semiconductor device assembly of claim 64, wherein said conductive material comprises a thermoplastic conductive elastomer.

68. (Original) The semiconductor device assembly of claim 64, wherein said conductive material comprises a metal.

69-74. (Canceled)

FI 75. (Currently amended) A semiconductor device assembly, comprising:
a first semiconductor device component including at least one first contact pad;
a second semiconductor device component including at least one second contact pad; and
at least one conductive element in contact with both ~~connecting~~ said at least one first contact pad
~~of said first semiconductor device component to~~ and said at least one second contact pad
~~of said second semiconductor device component~~, said at least one conductive element
comprising a plurality of superimposed, contiguous, mutually adhered layers comprising
~~the same~~ conductive material.

76. (Original) The semiconductor device assembly of claim 75, wherein said conductive material comprises a conductive elastomer.

77. (Original) The semiconductor device assembly of claim 75, wherein said conductive material comprises a metal.

78. (Previously presented) The semiconductor device assembly of claim 75, wherein at least one of said first semiconductor device component and said second semiconductor device component comprises a semiconductor die.

79. (Previously presented) The semiconductor device assembly of claim 78, wherein at least one of said first semiconductor device component and said second semiconductor device component comprises a packaged semiconductor die.

80. (Withdrawn) The semiconductor device assembly of claim 75, wherein each of said first semiconductor device component and said second semiconductor device component comprises at least one semiconductor die.

81. (Previously presented) The semiconductor device assembly of claim 75, wherein at least one of said first semiconductor device component and said second semiconductor device component comprises a carrier substrate.

82. (Currently amended) The semiconductor device assembly of claim 81, wherein said carrier substrate includes a support structure and at least one conductive ~~element~~ trace carried by said support structure and in communication with said at least one first contact pad thereof.

F1 83. (Currently amended) The semiconductor device assembly of claim 82, wherein at least one of said at least one conductive ~~element~~ trace and said support structure comprises a plurality of superimposed, contiguous, mutually adhered layers of material.

84. (Original) The semiconductor device assembly of claim 75, wherein said at least one conductive element is located on a surface of each of said first and second semiconductor device components.

85. (Original) The semiconductor device assembly of claim 84, wherein said at least one conductive element extends across a peripheral edge of at least one of said first and second semiconductor device components.

86. (Withdrawn) The semiconductor device assembly of claim 80, further comprising a carrier substrate upon which at least one of said semiconductor dice is disposed.

87. (Withdrawn) The semiconductor device assembly of claim 86, further comprising at least one other conductive element connecting at least one other contact pad of at least one of said semiconductor die to at least one contact pad of said carrier substrate.

88. (Withdrawn) The semiconductor device assembly of claim 87, wherein said at least one other conductive element comprises a plurality of superimposed, contiguous, mutually adhered layers of conductive material.

89. (Withdrawn) The semiconductor device assembly of claim 88, wherein said conductive material comprises a conductive elastomer.

90. (Withdrawn) The semiconductor device assembly of claim 88, wherein said conductive material comprises metal.

110. (Currently amended) A conductive trace at least partially formed on at least one semiconductor device component, comprising a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising the same conductive polymer material, at least a portion of said conductive trace being configured to extend and conduct electrical signals along a plane which is parallel to a plane in which the at least one semiconductor device component is located.

111. (Previously presented) The conductive trace of claim 110, wherein conductive polymer material comprises a thermoplastic conductive elastomer.

112. (Previously presented) The conductive trace of claim 110, configured to be carried by a single semiconductor device component.

113. (Previously presented) The conductive trace of claim 110, configured to at least partially electrically connect two semiconductor device components.

114. (Currently amended) A semiconductor device comprising:
a semiconductor device component; and
at least one conductive trace carried by said semiconductor device component, said at least one conductive trace including a plurality of superimposed, contiguous, mutually adhered layers, each of said layers comprising the same conductive polymer ~~to~~ material, at least a portion of said conductive trace being configured to extend and conduct electrical signals along a plane which is parallel to a plane in which said at least one semiconductor device component is located.

115. (Previously presented) The semiconductor device of claim 114, wherein said at least one conductive trace is substantially entirely carried by said semiconductor device component.

116. (Previously presented) The semiconductor device of claim 115, wherein said semiconductor device component comprises a layer of a carrier substrate.

FI 117. (Previously presented) The semiconductor device of claim 115, wherein said semiconductor device component comprises a dielectric layer disposed on an active surface of a semiconductor die.

118. (Previously presented) The semiconductor device of claim 114, wherein said conductive polymer material comprises a thermoplastic conductive elastomer.

119. (Previously presented) The semiconductor device of claim 114, wherein said at least one conductive trace communicates with a contact of said semiconductor device component.

120. (Previously presented) The semiconductor device of claim 119, wherein said semiconductor device component comprises a carrier substrate.

121. (Previously presented) The semiconductor device of claim 119, wherein said semiconductor device component comprises a semiconductor die.

FI 122. (Previously presented) The semiconductor device of claim 119, wherein said semiconductor device component comprises a packaged semiconductor device.

123. (Previously presented) The semiconductor device of claim 114, wherein said semiconductor device component comprises leads.

124. (Previously presented) The semiconductor device of claim 123, wherein said at least one conductive trace contacts one of said leads.
